

Appl No. 10/692,711  
Supplemental Response to Office Action of 11/03/2005

Attorney's Docket No. HES 2002-IP-007461U1 (30545.53)

Customer No. 00029920

## II. Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (cancelled)
2. (cancelled)
3. (previously presented) A system for processing signals in a well, comprising:
  - a packer disposed in the well;
  - a data source disposed in the well for acquiring data relating to fluid leakage across the packer;
  - a wireless electronic transmitter disposed in the well and connected to the data source for receiving signals from the data source and transmitting corresponding signals through the packer; and
  - a receiver disposed in the well for receiving the corresponding signals from the transmitter after transmission through the packer.
4. (previously presented) The system of claim 3 further comprising an electrical conductor connected to the receiver for passing the corresponding signals from the receiver uphole or downhole.
5. (previously presented) The system of claim 3 wherein the corresponding signals are transmitted via electromagnetic waves.
6. (previously presented) The system of claim 3 wherein the corresponding signals are transmitted acoustically.
7. (previously presented) The system of claim 3 wherein the transmitter and/or receiver are mounted on, or adjacent to, the packer.
8. (previously presented) The system of claim 3 wherein the transmitter and/or receiver are embedded in the packer.

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9. (cancelled)

10. (cancelled)

11. (previously presented) A method for processing signals in a well, comprising the steps of:  
acquiring data in the well relating to fluid leakage across a packer in the well;  
transmitting signals corresponding to the data through the packer;  
receiving the corresponding signals after transmission through the packer; and  
conducting the corresponding signals from the receiver.

12. (previously presented) The method of claim 11 wherein the signals corresponding to the data are transmitted via electromagnetic waves.

13. (previously presented) The method of claim 11 wherein the signals corresponding to the data are transmitted acoustically.

14. - 16. (cancelled)

17. (currently amended) The system of claim ~~46~~ 22 further comprising means connected to the receiver means for passing the corresponding signals from the receiver means uphole or downhole.

18. (currently amended) The system of claim ~~46~~ 22 wherein the data is transmitted via electromagnetic waves.

19. (currently amended) The system of claim ~~46~~ 22 wherein the data is transmitted acoustically.

20. (currently amended) The system of claim ~~46~~ 22 wherein the transmitter means and/or the receiver means are mounted on, or adjacent to, the packer.

21. (currently amended) The system of claim ~~46~~ 22 wherein the transmitter means and/or the receiver means are embedded in the packer.

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22. (new) A system for processing signals in a well, comprising:
- a packer disposed in the well;
  - means disposed in the well for acquiring data relating to the fluid leakage across the packer;
  - transmitter means for receiving signals from the means and transmitting corresponding signals through the packer; and
  - receiver means disposed in the well for receiving the corresponding signals after transmission through the packer.